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(54) A METHOD OF AND MEANS FOR SCREENING AND AFFORDING PROTECTION OF STATIONARY OR PARKED VEHICLES AGAINST THE HEAT OF THE SUN

(71) We, REGINALD FRANK HAYNES and CONSTANCE JOYCE HAYNES both British Subjects of "Woodland Thatch", Mount Avenue, Hutton Mount, Brentwood, Essex, do hereby declare the invention for which we pray that a Patent may be granted to us and the method by which it is to be performed to be particularly described in and by the following statement:–

This invention relates to a cover assembly for screening and affording protection of stationary or parked vehicles, hereinafter referred to as cars, against the heat of the sun and has for its primary object the provision of creating an air space and shade above a car roof and along the windows and so reduce the interior temperature of the car to facilitate the interior comfort for users, including pets, when the car is stationary.

Broadly, according to the present invention, there is provided a cover assembly for protecting a stationary or parked motor car against the heat of the sun, the assembly comprising brackets for attachment to roof gutters or door frames at spaced locations on opposite sides of the motor car, supports for engagement with the brackets or engaged therewith, the supports extending transversely across the top of the motor car in spaced relation above the car roof, a flexible sheet member to extend over the supports with parts to the front and rear of the motor car including connecting means comprising guy lines for attachment to suitable anchorage points on the vehicle in such a manner that the sheet material is held and maintained taut above the car roof to provide an air space between the sheet and the car roof, the sheet further including a portion extending to the side of the vehicle with support means to maintain same generally horizontal to provide an awning to one side of the motor car.

The brackets are adapted to be clamped to car roof gutters or door frames in alignment at opposite sides of a car and connected to the ends of telescopic supports positioned so as to extend transversely over and be sapced above the top of the car roof, said sheet material being fitted at the front and rear thereof with eyelets wherein guy ropes fastened to the eyelets are adapted for connecting said ends of the sheet to anchorage points on the vehicle.

According to a modified arrangement the sheet of flexible material can take the form of a roller blind withdrawable from a built-in recess in a car boot cover or from a specially provided receptacle attached to the boot lid.

To enable the invention to be clearly understood preferred embodiments thereof will now be described, by way of example with reference to the accompanying purely diagrammatic drawings, wherein:–

Figure 1 is a perspective view showing a car fitted with a cover assembly of this invention.

Figure 2 is a plan view showing the set of parts laid out flat.

Figure 3 is a perspective view of a support for the sheet material, the support being provided at its ends with car roof engaging members.

Figure 4 is a perspective view of a clamp for a support.

Figure 5 is a view of a brace used in conjunction with said clamp, and

Figure 6 is a perspective view of an erected support and clamp at one side of the vehicle.

Referring to said drawings, a sheet or sunshade 1 is supported by two telescopic rack members 2 mounted so as to extend transversely across the roof of a car from side to side and positioned respectively one at the front and one at the back of said roof.

Each telescopic rack member 2, as shown in Figure 3, comprises two telescopic light

alloy metal tubes fitted at their outer ends with end caps 3 to which are anchored respectively the two ends of an elastic shock absorbing cord 4 or the equivalent, e.g. a light coiled tension spring extending through the tube, each of said end caps 3 also being formed with diametrically opposed holes in which are engaged and hinged the upper inturned ends 5 of a wire support consisting of side limbs 6 curved at their lower ends and bridged at these ends by a cross wire shaped to form two portions 7 that can be engaged with the lip of a roof gutter of a car. These side limbs 6 may be coated with a plastics material as indicated at 6*a* or said wire support may be completely coated with a plastics material.

Each support is secured to a car roof and prevented from collapsing by an adapter as shown in Figure 4 and that also comprises a brace (Figure 5) having a tubular part 8 connected by a ball join 9 at its lower end to a rubber sucket 10. The upper end of the part 8 has fixed therein a captive nut 11 through which passes a threaded spindle 12 to the upper end of which is hinged at 13 a threaded rod 14 formed with a shoulder or abutment 15 and fitted with a wing nut 15*a*. This bracing member is used in conjunction with a clamp 16 and a pair of fixing plates 17 (Figure 4). The lower end of this clamp 16 is formed with a pair of feet 18 intended to fit under a car roof gutter or door frame as shown in Figure 6 in which a fragment of a car roof is indicated at 19.

Each clamp 16 is formed with a vertical line of holes 20 and when fitting a support to a car roof 19 the sucket 10 is engaged with the roof and the brace tilted and the threaded part 14 engaged through a selected hole 20 in the clamp 16 and also through aligned holes 17*a* in the fixing plates 17 between which the wire support is gripped and sandwiched. The fixing plates 17 are formed with grooves 17*b* constituting channels in which the side limbs 6 of a wire support are gripped. From the foregoing it will be appreciated that a rack member is prevented from collapsing by the lower end of the brace adjusting through said rubber sucker 10 to the angle formed between the clamp 16 and the car roof 19.

The vertical adjustability between the tubular part 8 and the threaded spindle 12 of each brace is to allow for differences in roof shapes and can, if desired, be made sufficient to accommodate a range between flat roofs and high roof cars.

In use the four supports are fitted to a car roof in the manner described and the sheet 1 is then engaged over the two telescopic members 2 so as to cover the windscreen, the car roof and the back window of the car. Guy ropes 21 having looped or hooked outer ends are fixed in position in selected eyelets 1*a* at the corners of the sheet 1 and then two of them are anchored to the front of the car by looping or hooking the ends to a suitably low position on the car, e.g. to a bumper or wheel arch. This procedure is repeated with the two rear guy ropes 21 and the sheet 1 drawn tight by manipulating adjustors on the guy ropes 21 so as to ensure that the maximum air space is left between the sheet 1 and the car roof and windows. If desired the sheet 1 may be made of elasticated material to enable it to stretch to provide for the desirable tautness when fitted.

Although reference has been made to the use of only two transverse telescopic members, three or more transverse members can be used depending mainly upon the length of the roof of a particular make of car.

A side drape 22 may be provided having eyelets that can be engaged with wire hooks that can be clipped on to the rack member or on to hooks fitted to the threaded rods 14 of the braces and gripped in position by the wing nuts 15*a*.

A side canopy 23 is provided having eyelets that can be engaged with hooks mounted as above described and supported by posts and guy ropes as illustrated.

The uses to which the cover assembly of this invention can be put vary from leaving a car parked and shaded at any time; for use as a dressing or changing room at the beach and with the side canopy 23 up as a picnic sunshade or a lean-to tent.

According to another embodiment, not illustrated, the car roof shading sheet 1 resembles a roller blind which can be withdrawn from a built-in recess in a car boot cover or in a receptacle fitted to a boot lid and extended over said transversely disposed telescopic members 2 and anchored in position as above explained, the blind being spring-loaded so as to re-enter and be wound up on a roller so as to occupy the minimum of space when released.

WHAT WE CLAIM IS:–

1. A cover assembly for protecting a stationary or parked motor car against the heat of the sun, the assembly comprising brackets for attachment to roof gutters or door frames at spaced locations on opposite sides of the motor car, supports for engagement with the brackets or engaged therewith, the supports extending transversely across the top of the motor car in spaced relation above the car roof, a flexible sheet member to extend over the supports with parts to the front and rear of the motor car including connecting means comprising guy lines for attachment to suitable anchorage points on the vehicle in such a manner that the sheet material is held and maintained taut above the car roof to provide an air space between the sheet and the car roof, the sheet further including a portion extend-

ing to the side of the vehicle with support means to maintain same generally horizontal to provide an awning to one side of the motor car.

2. The assembly of Claim 1 wherein the sheet has further portions which lie respectively over and spaced from the front and rear windscreen, said portions including the guy lines.

3. The assembly of Claim 1 or 2 wherein the sheet has a further portion for covering side windows of a car.

4. The assembly claimed in Claims 1, 2 or 3 comprising brackets adapted to be clamped to car roof gutters or door frames in alignment at opposite sides of a car and connected to the ends of telescopic supports positioned so as to extend transversely over and be spaced above the top of the car roof, and sheet material supported over said supports, said sheet material being fitted at the front and rear thereof with eyelets wherein guy ropes fastened to the eyelets are adapted for connecting said ends of the sheet to anchorage points on the vehicle.

5. The assembly as claimed in Claim 4, wherein said aligned brackets are hinged respectively to the outer ends of said telescopic supports and are adapted at their lower ends to engage with the lip of a roof gutter, each of said brackets also having associated therewith an adapter consisting of a clamp secured to said bracket and which clamp is connected to the upper end of a brace adapted to be pivotally attached at its lower end to a car roof so as to assume an inclined position relatively to said bracket, the said clamp engaging by its lower end beneath the car roof gutter.

6. The assembly as claimed in Claim 5, wherein the upper end of said brace is connected to said clamp in a vertically adjustable manner.

7. The assembly as claimed in Claim 6, wherein the brace comprises two coaxial parts that can be screwed one into the other to vary the effective height of the brace and wherein the upper end of the upper part of the brace has hinged thereto a threaded part that can be engaged through a selected one of a vertical line of holes in the clamp, the said threaded part also passing through aligned holes in a pair of fixing plates between which said clamp is located, the said clamp and fixing plates being gripped between a shoulder on said threaded part, and a clamping nut.

8. The assembly as claimed in Claim 7, wherein the upper of said two co-axial parts is screwed into the lower part and wherein the latter is connected by a ball joint with a rubber sucker for engagement with a car roof.

9. The assembly as claimed in any of Claims 4 to 8, wherein each of said telescopic supports for said sheet of flexible material comprises two telescopic tubes fitted at their outer ends with end caps to which are anchored respectively the two ends of a shock-absorbing elastic cord or a light coiled spring extending through said tubes.

10. The assembly as claimed in Claims 5 and 9, wherein said brackets are hinged at their upper ends to said end caps.

11. A modification of the assembly claimed in any of Claims 4 to 10, wherein said sheet of flexible material is adapted to be withdrawn "roller-blind" fashion from a built-in recess in a car boot cover, or in a receptacle fitted to a boot lid and extended over said transversely disposed telescopic supports and anchored in position by guy ropes at its front end to suitable points on the car, e.g. bumpers or wheel arches, which roller is spring-loaded so that the sheet can re-enter said recess or receptacle and be wound up on a roller when released.

12. A cover assembly method for protecting a stationary or parked car against the heat of the sun substantially as hereinbefore described with reference to and as illustrated by the accompanying drawings.

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1522367 COMPLETE SPECIFICATION

1 SHEET *This drawing is a reproduction of the Original on a reduced scale*

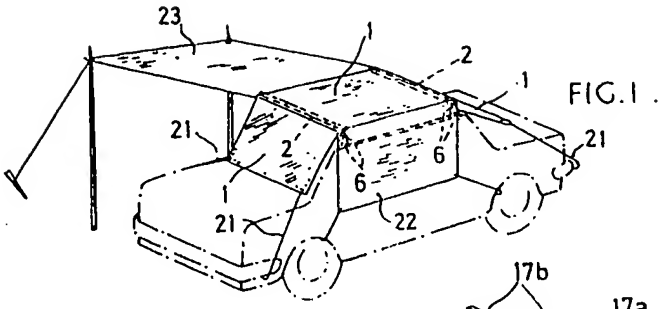

FIG.1.

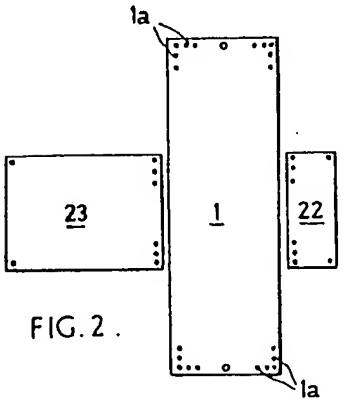

FIG.2.

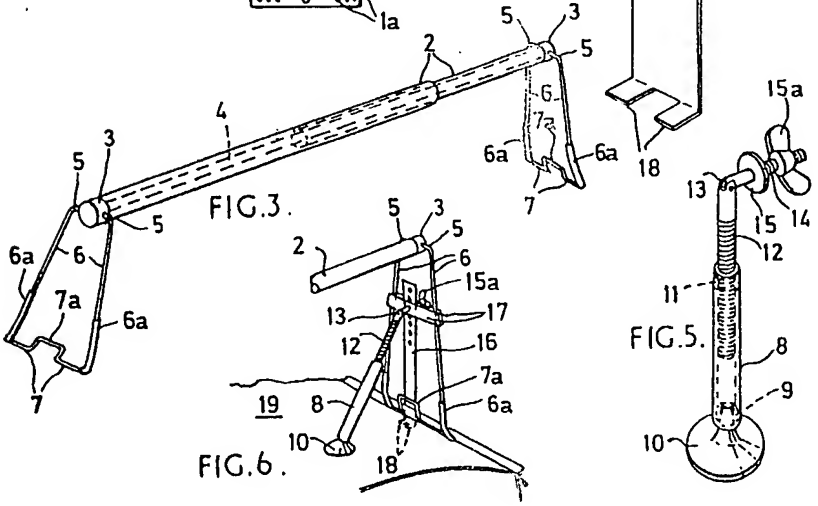

FIG.3.

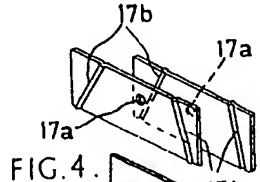

FIG.4.

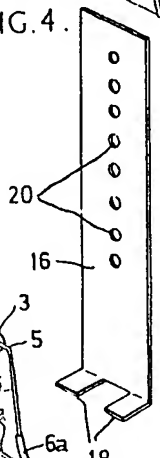

FIG.6.

FIG.5.